

CLAIMS

What is claimed is:

1. A dual band antenna for a wireless communication system, comprising:

a conducting surface for radiating and receiving electromagnetic signals and having a first cutout part and a second cutout part, said first cutout part having a length for producing electromagnetic resonance at a first frequency range, and said second cutout part having a length for producing electromagnetic resonance at a second frequency range;

a feed point connected with said conducting surface around said first cutout part for feeding signals of said first frequency range to said first cutout part and for feeding signals of said second frequency range to said second cutout part; and

a feed line connected with said conducting surface at said feed point for feeding signals to said dual band antenna.

2. The dual band antenna of claim 1, wherein said first cutout part and said second cutout part lie in the same plane of said conducting surface.

3. The dual band antenna of claim 1, wherein said first cutout part is on a deflected portion of said conducting plate relative to said second cutout part.

4. The dual band antenna of claim 1, wherein said first cutout part and said second cutout part elongate substantially in the same direction on said conducting surface.

5. The dual band antenna of claim 1, wherein said feed line

is a coaxial cable.

5 6. The dual band antenna of claim 5, further comprising a
grounding location formed on said conducting surface
around said first cutout part whereby said coaxial cable
is grounded.

10 7. The dual band antenna of claim 6 further comprising a
fixation structure disposed on said conducting surface
around said grounding location, said fixation structure
having a recess receiving said coaxial cable for providing
precise fixation and grounding of said coaxial cable.

15 8. The dual band antenna of claim 1, wherein said first cutout
part is rectangular and said second cutout part is
trapezoidal.

20 9. A dual band slot antenna for a wireless communication
system, comprising:
a conducting plate for radiating and receiving
electromagnetic signals and having a first slot and a
second slot, said first slot elongating for producing
electromagnetic resonance at a first frequency range,
and said second slot elongating for producing
25 electromagnetic resonance at a second frequency range;
a feed line connected with said conducting plate around
said first slot for feeding signals of said first
frequency range of said first slot and for feeding
signals of said second frequency range of said second
30 slot.

10. The dual band slot antenna of claim 9, wherein said first
slot is on a deflected part of said conducting plate
relative to said second slot.

11. An antenna structure for a wireless communication system,
comprising:

5 a conducting plate for radiating and receiving
electromagnetic signals and having a first opening and
~~a second opening, said first opening being rectangular~~
for producing electromagnetic resonance at a first
frequency band, and said second opening being
10 trapezoidal for producing electromagnetic resonance
at a second frequency band; and

a feed line connected with said conducting plate around
said first opening for feeding signals of said first
frequency band of said first opening and for feeding
signals of said second frequency band of said second
15 opening.

12. The antenna structure of claim 11, wherein said first
opening is on a deflected part of said conducting plate
relative to said second opening.

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